

and proteins, said mimic comprising a non-naturally occurring backbone structure to which are appended a plurality of heterocyclic bases, wherein:

said non-naturally occurring backbone structure includes peptide linkages, vinyl polymerization-type linkages, phosphodiester analog linkages, and combinations thereof; and

at least one of said bases is [being] substituted with at least one sterically bulky substituent at a position one, two or three atoms removed from the position of attachment of said base to the backbone.

REMARKS

Claims 1-8 and 11-21, all claims pending in this patent application, stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly enabled only for backbones formed from peptide linkages, vinyl polymerization-type linkages, and phosphodiester analog linkages (see Office Action mailed August 5, 1997, at page 3). Applicants believe that those skilled in the art would be able to practice the claimed inventions with a wide variety of other backbones. Applicants have nonetheless amended the claims to require use of the linkages identified in the Office Action.¹ This

¹ No such amendment is believed to be necessary for claims 11-21. Although the Office Action mailed August 5, 1997, rejected these claims for alleged lack of enablement, that rejection appears to be based upon a mis-reading of the claims. The Office Action, for example, asserts that claim 11 recites a terminal "Dⁿ⁻¹" group. Inspection of claim 11, however, reveals that there is no "Dⁿ⁻¹" group, but, rather, a "D" group that is

amendment, however, is made solely to advance prosecution of this patent application, and without prejudice to presentation of the original claims in a continuing patent application.

Claims 1-8 remain rejected under 35 U.S.C. § 102(b) for alleged anticipation because a synthetic intermediate disclosed in WO 86/05518 ("the Summerton reference") could be interpreted as being a nucleic acid mimic according to the claims. The claims, however, are not simply directed to nucleic acid mimics, but, rather, to nucleic acid mimics in admixture with at least one of the recited target molecules. Thus, the possibility that the synthetic intermediate identified in the Advisory Action may be a nucleic acid mimic is irrelevant to the issue of anticipation, as it is undisputed that the Summerton reference does not teach or suggest use of that intermediate in admixture with a target molecule. Absent such a teaching, there simply cannot be any anticipation of claims 1-8.

Applicants submit that the claims presently before the Examiner patentably define the invention over the applied art and

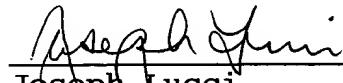
covalently bound to an "I" group.

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are otherwise in condition for ready allowance. An early Office Action to that effect is, therefore, earnestly solicited.

Respectfully submitted,



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